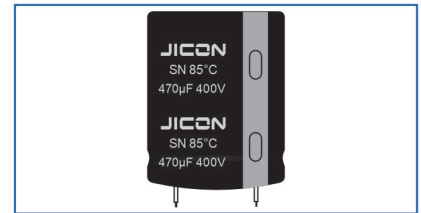


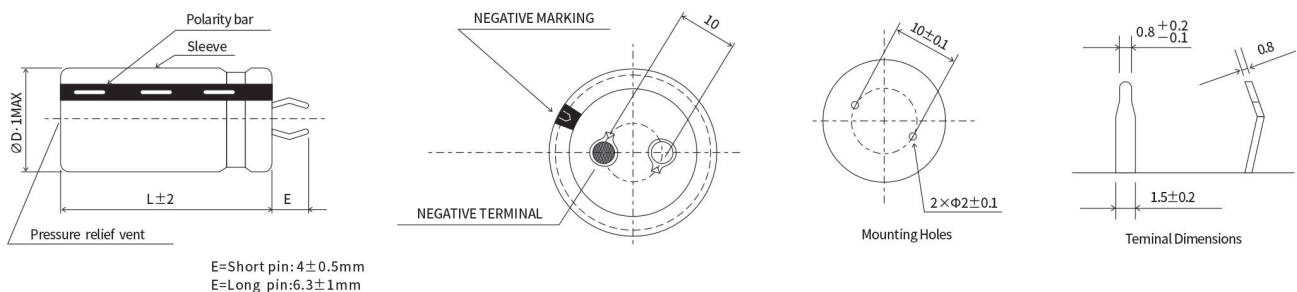
SN 系列 SERIES

- 3000h at 85°C
- High ripple current
- Long life, high reliability
- RoHS Compliant



Items	Characteristics	
Operating Temperature Range(°C)	-40~+85	-25~+85
Voltage Range (V)	10~100	160~550
Capacitance Range (µF)	82~82000	
Capacitance Tolerance(20°C, 120Hz)	±20%	
Leakage Current (µA)	$I \leq 0.01CV$ or 1.5mA whichever is greater After 5 minute at 20°C application of rated voltage I:Max. leakage current (µA) C:Nominal Capacitance (µF) V:Rated Voltage (V)	
Dissipation Factor (20°C, 120Hz)	Rated Voltage (V)	10 16 25 35 50 63~100 160~450 500 550
	Tanδ(max)	0.55 0.50 0.40 0.35 0.30 0.20 0.15 0.24 0.26
Low Temperature Characteristics (Max. Impedance Ratio at 120Hz)	Rated Voltage (V)	10~25 35~100 160~450 500 550
	Z-25°C/Z+20°C	- - 4 6 8
	Z-40°C/Z+20°C	6 3 - - -
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for the specified period of time at 85°C.	
	Capacitance change	≤ ± 20% of the initial value
	D.F.(Tanδ)	≤ 200% of specified value
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 85°C without voltage applied .	
	Capacitance change	≤ ± 20% of the initial value
	D.F.(Tanδ)	≤ 200% of specified value
	Leakage current	≤ 200% of specified value

◆ Dimensions(mm)



◆ Temperature Coefficient

Temperature(°C)	+40	+55	+70	+85
Voltage(V)				
<160	2.10	1.80	1.50	1.00
≥160	1.70	1.50	1.30	1.00

◆ Frequency Coefficient

Frequency	50/60HZ	120HZ	1KHZ	≥10KHZ
Voltage(V)				
<160	0.80	1.00	1.32	1.45
≥160	0.80	1.00	1.30	1.41

◆ Ratings for SN Series

UR (Surge Voltage) Code (V)	Rated Capacitance (μF)	Max Dissipation Factor 20°C120Hz tanδ	Rated Ripple Current 85°C120Hz (Arms)	Size φD×L (mm)	UR (Surge Voltage) Code (V)	Rated Capacitance (μF)	Max Dissipation Factor 20°C120Hz tanδ	Rated Ripple Current 85°C120Hz (Arms)	Size φD×L (mm)
10(13)1A	10000	0.55	2.5	22×25	80(100)1K	1000	0.20	1.3	22×25
	15000	0.55	3.2	22×30		1200	0.20	1.5	22×30
	18000	0.55	3.6	25×30		1500	0.20	1.7	25×25
	22000	0.55	4.1	25×35		1800	0.20	1.9	25×30
	33000	0.55	4.6	25×40		2200	0.20	2.2	25×35
	39000	0.55	5.2	25×45		2700	0.20	2.5	25×40
	47000	0.55	6.0	30×40		3300	0.20	2.8	25×45
	56000	0.55	6.7	30×45		3900	0.20	3.1	25×50
	68000	0.55	7.5	30×50		4700	0.20	3.6	30×45
	82000	0.55	8.7	35×45		5600	0.20	3.8	30×50
16(20)1C	8200	0.50	2.2	22×25	100(125)2A	6800	0.20	4.1	35×50
	10000	0.50	2.6	22×30		8200	0.20	4.7	35×50
	12000	0.50	2.9	22×35		10000	0.20	5.6	35×60
	15000	0.50	3.3	22×40		680	0.20	1.1	22×25
	18000	0.50	3.7	25×35		820	0.20	1.2	22×30
	22000	0.50	4.2	25×40		1000	0.20	1.4	22×35
	27000	0.50	5.0	25×45		1200	0.20	1.6	22×40
	33000	0.50	5.6	30×40		1500	0.20	1.7	25×35
	39000	0.50	6.2	30×45		1800	0.20	2.0	25×40
	47000	0.50	7.0	30×50		2200	0.20	2.2	25×45
25(32)1E	56000	0.50	8.0	35×45		2700	0.20	2.6	25×50
	68000	0.50	8.9	35×55		3300	0.20	3.0	30×45
	82000	0.50	9.6	35×60		3900	0.20	3.4	30×50
	5600	0.40	2.0	22×25	160(200)2C	4700	0.20	4.0	35×50
	6800	0.40	2.3	22×30		5600	0.20	4.5	35×55
	8200	0.40	2.6	22×35		6800	0.20	5.2	35×60
	10000	0.40	2.9	22×40		8200	0.20	5.6	35×65
	12000	0.40	3.3	22×45		10000	0.20	6.2	35×70
	15000	0.40	3.4	25×40		220	0.15	1.2	22×25
	18000	0.40	4.3	25×50		270	0.15	1.3	22×25
	22000	0.40	4.8	30×40		330	0.15	1.5	22×25
	33000	0.40	6.5	35×40		390	0.15	1.6	22×30
	39000	0.40	7.5	35×45		470	0.15	1.8	25×30
35(44)1V	47000	0.40	8.2	35×55		560	0.15	2.1	25×30
	56000	0.40	9.1	35×60		680	0.15	2.5	25×35
	3300	0.35	1.8	22×25	200(250)2D	820	0.15	2.7	25×40
	3900	0.40	2.1	22×30		1000	0.15	3.3	25×45
	4700	0.40	2.2	25×25		1200	0.15	3.6	25×50
	5600	0.40	2.3	25×30		1500	0.15	4.2	30×45
	6800	0.40	2.6	25×35		1800	0.15	4.4	35×45
	8200	0.40	2.8	25×40		2200	0.15	5.0	35×50
	10000	0.40	3.1	25×45		220	0.15	1.2	22×25
	12000	0.40	3.5	25×50		270	0.15	1.3	22×30
	15000	0.40	4.1	30×45		330	0.15	1.6	22×30
	18000	0.40	4.6	30×50		390	0.15	1.8	22×35
50(63)1H	22000	0.40	5.3	35×45		470	0.15	2.0	22×40
	27000	0.40	7.0	35×50	250(300)2E	560	0.15	2.2	22×45
	33000	0.40	8.2	35×60		680	0.15	2.6	25×40
	2200	0.30	1.7	22×25		820	0.15	2.8	25×50
	2700	0.30	1.9	22×30		1000	0.15	3.4	30×45
	3300	0.30	2.0	22×35		1200	0.15	3.7	30×50
	3900	0.30	2.1	22×35		1500	0.15	4.3	35×50
	4700	0.30	2.4	22×40		1800	0.15	4.5	35×55
	5600	0.30	2.5	25×40		2200	0.15	5.1	35×60
	6800	0.30	2.8	25×45		150	0.15	0.8	22×25
	8200	0.30	3.2	25×50		180	0.15	1.0	22×25
63(79)1J	10000	0.30	3.4	30×45	350(400)2V	220	0.15	1.2	22×30
	12000	0.30	3.8	30×50		270	0.15	1.3	22×35
	15000	0.30	4.5	35×50		330	0.15	1.6	22×40
	18000	0.30	5.2	35×55		390	0.15	1.9	22×45
	22000	0.30	6.0	35×60		470	0.15	2.2	22×50
	1500	0.20	1.6	22×25		560	0.15	2.4	25×45
	1800	0.20	1.8	22×30		680	0.15	2.8	30×40
	2200	0.20	2.0	22×30		820	0.15	3.2	30×45
	2700	0.20	2.2	22×35		1000	0.15	3.7	35×40
	3300	0.20	2.3	22×40		1200	0.15	4.1	35×45
	3900	0.20	2.5	22×45		1500	0.15	4.6	35×50
	4700	0.20	2.7	25×40		100	0.15	0.8	22×25
	5600	0.20	3.1	25×45		120	0.15	0.9	22×30
	6800	0.20	3.6	30×40		150	0.15	1.0	22×35
	8200	0.20	3.7	30×50		180	0.15	1.2	22×40
	10000	0.20	4.3	35×45		220	0.15	1.3	22×45
	12000	0.20	4.8	35×50		270	0.15	1.5	25×40
	15000	0.20	5.6	35×60		330	0.15	1.8	25×45

◆ Ratings for SN Series

UR (Surge Voltage) Code	Rated Capacitance	Max Dissipation Factor 20°C120Hz	Rated Ripple Current 85°C120Hz	Size $\phi D \times L$
(V)	(μF)	$\tan \delta$	(A rms)	(mm)
350(400)2V	390	0.15	1.9	30×40
	470	0.15	2.2	30×45
	560	0.15	2.5	35×45
	680	0.15	2.9	35×50
	820	0.15	3.1	35×55
	1000	0.15	3.5	35×60
400(450)2G	82	0.15	0.7	22×25
	100	0.15	0.8	22×25
	120	0.15	0.9	22×30
	150	0.15	1.2	22×35
	180	0.15	1.3	22×40
	220	0.15	1.5	22×45
	270	0.15	1.7	25×40
	330	0.15	2.1	30×35
	390	0.15	2.3	30×40
	470	0.15	2.5	35×40
	560	0.15	3.0	35×45
	680	0.15	3.4	35×50
	820	0.15	3.7	35×55
	1000	0.15	4.0	35×60
420(470)2X	82	0.15	0.7	22×25
	100	0.15	0.8	22×30
	120	0.15	1.0	22×30
	150	0.15	1.2	25×30
	180	0.15	1.3	25×35
	220	0.15	1.5	25×40
	270	0.15	1.7	25×45
	330	0.15	2.1	30×40
	390	0.15	2.3	30×45
	470	0.15	2.5	30×50
	560	0.15	3.0	35×45
	680	0.15	3.4	35×50
	820	0.15	3.7	35×55
	1000	0.15	4.0	35×60
450(500)2W	82	0.15	0.8	22×25
	100	0.15	0.9	22×30
	120	0.15	1.1	22×35
	150	0.15	1.3	25×30
	180	0.15	1.4	25×35
	220	0.15	1.6	25×40
	270	0.15	1.9	25×45
	330	0.15	2.2	30×40
	390	0.15	2.4	30×45
	470	0.15	2.8	35×45
	560	0.15	3.2	35×50
	680	0.15	3.6	35×55
	820	0.15	3.8	35×60
	1000	0.15	4.2	35×70
500(550)2H	100	0.24	1.0	25×30
	120	0.24	1.1	25×30
	150	0.24	1.2	25×35
	180	0.24	1.4	25×40
	220	0.24	1.6	30×35
	270	0.24	1.9	30×40
	330	0.24	2.2	30×45
	390	0.24	2.4	35×40
	470	0.24	2.8	35×50
	560	0.24	3.2	35×55
550(600)2L	680	0.24	3.6	35×60
	100	0.26	1.0	25×30
	220	0.26	1.6	30×40
	330	0.26	2.2	35×45
	470	0.26	2.8	35×55
	560	0.26	3.1	35×60
	680	0.26	3.5	35×70